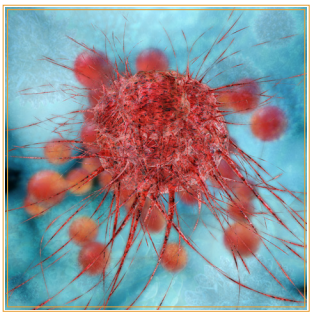
Scancell at the frontier of cancer therapy

Website: www.scancell.co.uk



AIM-quoted **Scancell (AIM:SCLP)** is operating at the forefront of immuno-oncology, an exciting field of cancer research which involves the development of therapies, known as immunotherapies, which harness the body's ability to generate and sustain an effective immune response against cancer.

A key challenge in the fight against cancer is that many tumours successfully evade the body's own natural defences. Scancell's mission is to overcome this by developing products that stimulate the immune system to treat or prevent cancer.

Immunotherapy is now an established treatment option for cancer patients which has been largely driven by the approval of checkpoint inhibitors such as Opdivo (nivolumab), Yervoy (ipilimumab) and Keytruda (pembrolizumab), which can inhibit the ability of tumour cells to suppress an immune response.

However, despite their success, these products have significant limitations and are only applicable to a minority of cancer patients. Scancell's goal is to develop new classes of competitive 'off the shelf' therapeutic cancer vaccines that are applicable to a broad range of patients with the aim to improve overall response and address the many unmet needs in the treatment of cancer.

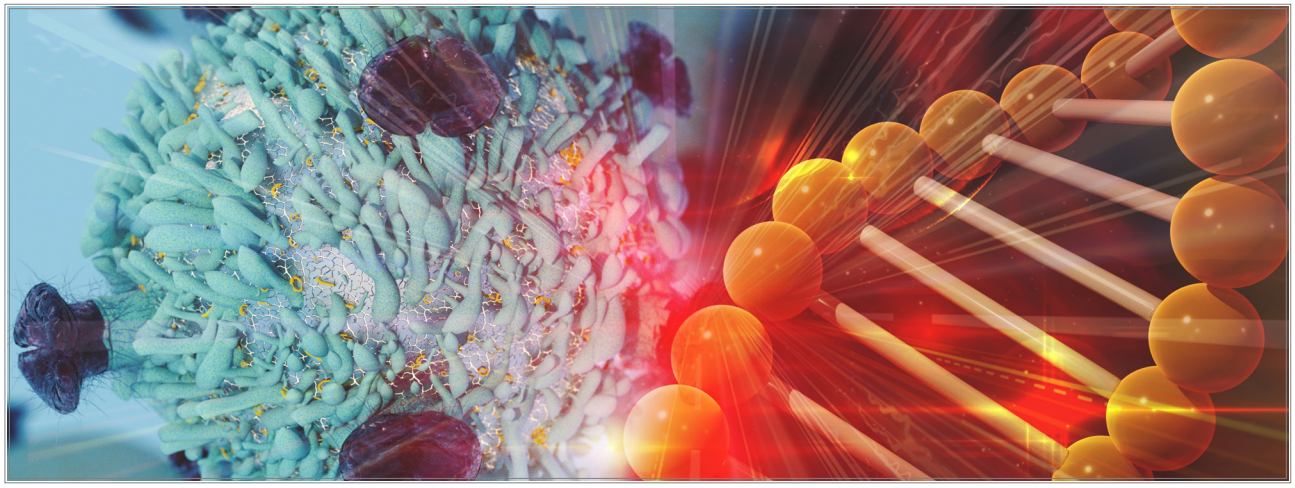
INTRODUCING SCANCELL

A COMPANY OPERATING AT THE FOREFRONT OF IMMUNO-ONCOLOGY

MARKET OPPORTUNITY

The cancer immunotherapy market is one of the most rapidly growing markets within the biopharmaceutical industry, estimated to be worth $100bn by the year 2022 (ref: ResearchAndMarkets.com 30 November 2018).

Immunotherapies are being evaluated in most



cancer indications and their unrivalled efficacy and relative low toxicity profile compared to chemotherapy is already leading to paradigm shifts in the treatment for many cancers.

The commercial potential of Scancell's products will be defined by clinical data, especially in combination with other therapies such as the checkpoint inhibitors, in order to provide an increased and durable response in patients without compromising safety, whilst addressing the unmet needs in hard to treat cancers and without significantly increasing the overall cost of treatment.

Scancell has two immunotherapy technology platforms, ImmunoBody and Moditope that have shown the potential to address each of these criteria.

IMMUNOBODY AND MODITOPE: INNOVATIVE AND DIFFERENTIATED TECHNOLOGIES FOR CANCER THERAPY

IMMUNOBODY

ImmunoBody products are designed to stimulate the body's immune system to recognise specific cancer proteins on the tumour and then destroy it. ImmunoBody provides a versatile, adaptable platform that has the potential to allow the treatment of many tumour types. Scancell has currently developed two ImmunoBody cancer vaccines: SCIB1 and SCIB2.

The lead clinical programme from the ImmunoBody platform, SCIB1, has completed a Phase 1/2 clinical trial in patients with Stage III/IV metastatic melanoma. SCIB1 treatment appears to result in superior survival compared to historical rates, with the majority of patients in the trial with resected melanoma remaining alive for more than five years. SCIB1 was also shown to have a favourable safety profile with no dose-limiting toxicities and no serious adverse events.

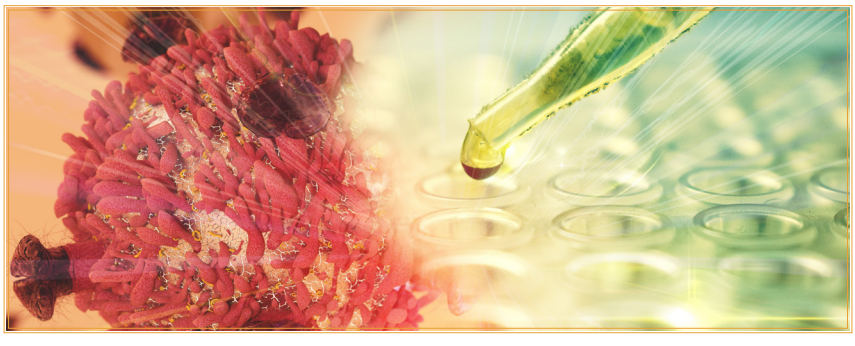
A Phase 2 trial of SCIB1 is now underway to determine an improved overall response to current standard of care therapy (Keytruda/pembrolizumab) in patients with inoperable melanoma.

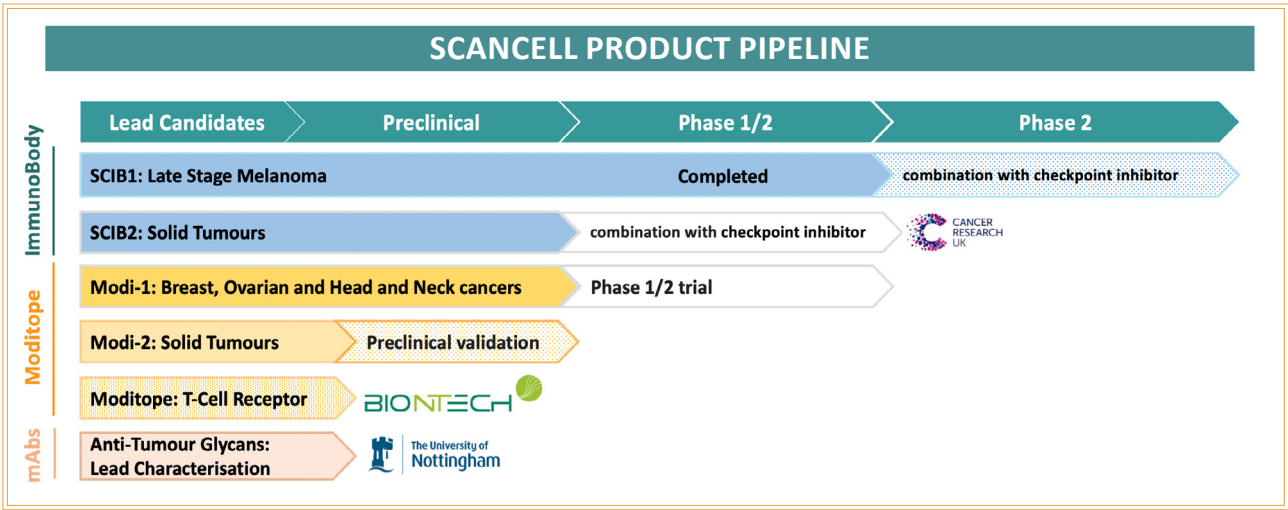
Scancell is developing SCIB2 in partnership with Cancer Research UK (CRUK) and a Phase 1/2 clinical trial is being planned.

MODITOPE

Scancell's Moditope immunotherapy platform is based on exploiting the normal immune response to stressed cells and harnessing this mechanism to destroy cancer. Metabolism within cancer cells differs to normal cells as the cancer cells grow quickly, hence they need a lot of energy and nutrients and become 'stressed'.

Some of the proteins within stressed cells are broken down to help the cell survive during which certain modifications occur resulting in modified peptide fragments ('moditopes'). If these modified peptides are presented on





the cell surface, normally the immune system would recognise them and target that cell for destruction.

However, one hallmark of cancer is its ability to evade immune detection.

Moditope is a technology platform that takes advantage of these unique stress induced modifications to stimulate an immune response.

After immunisation with a Moditope vaccine comprising several modified peptides, a unique immune response of a potent type of T cell are produced which travel around the body to the tumour site where they force the cancer cells to express the modified peptides on the cell surface, enabling the activated T-cells to destroy them.

Scancell's lead Moditope vaccine, Modi-1, is currently being manufactured in preparation for clinical evaluation in the treatment of solid tumours including triple negative breast cancer, ovarian cancer, and head and neck cancer, scheduled for the first half of 2020.

Scancell is also collaborating with BioNTech, Europe's largest private biotechnology company, to identify the T-cell receptors that recognise Moditopes and if successful to develop these further for adoptive cell therapy.

ANTI-GLYCAN ANTIBODIES

A third approach that Scancell is developing relates to monoclonal antibodies, a well validated modality in cancer therapy. Cells are adorned with sugar molecules known as glycans and the pattern of these glycans differ between tumour cells and healthy cells.

Glycans are involved in regulation of many physiological processes and inhibition of these leads to rapid cell death. Antibodies that target such tumour glycan signatures therefore provide an attractive strategy for immunotherapy.

This novel monoclonal antibody platform offers a new opportunity for collaboration and commercial transactions with antibody engineering companies looking for differentiated therapeutic targets.

OUTLOOK

The commercial value of Scancell's unique approaches will be realised though the licensing of its intellectual property to larger companies.

The terms of licensing transactions will be based on the relationship between potential market share, identified eligible patient populations, and clinical value.

Clinical data built on robust clinical trials will be key to answering these questions and enabling the assessment of market and product positioning for commercial transactions with biopharmaceutical companies who would further develop these products for market entry.

Scancell's ability to generate more clinical data has been aided by the recent £3.88m investment by Vulpes Life Sciences Fund a recognised healthcare investor with a long-term outlook.

The company remains focused on the continued development of its pipeline with initial clinical readouts from the planned clinical studies anticipated within the next 18 months.